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ABSTRACT

The pamphlet provides a framework for teaching decision making skills at the elementary and secondary levels. The first section presents five criteria for selecting instructional objectives, subject matter, and teaching procedures in basic education. The criteria include (1) emphasis on skills for daily living, (2) relevance to students' personal experiences, (3) continuity of curriculum throughout grade levels, and (4) practical application of skills. The second section describes the Essential Learning Skills Television Project, which creates brief television programs to help fifth and sixth graders develop skills in communication, math, and critical thinking. The third section suggests instructional procedures for developing other television programs and related printed materials. Much of the discussion centers on how to teach students to make two types of decisions: factual and value-oriented. Factual decisions involve gathering and evaluating information to choose between alternative claims about reality. Value decisions involve use of both facts and value judgments to choose among alternative courses of action or policies. The concluding section evaluates the pamphlet's teaching ideas in terms of the original five criteria for basic education.
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BACKGROUND PAPER

Essential Learning Skills in the Education of Citizens

by

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SO 010 308

The Essential Learning Skills Television Project is a cooperative activity of state and provincial agencies, designed to strengthen learning skills instruction in American and Canadian elementary schools. It had its origin in a 1973-74 series of meetings of educators and educational broadcasters in the United States and Canada.

Organized and managed by the Agency for Instructional Television, the project is financed largely by the participating states and provinces. Exxon Corporation is supporting initial informational activities; the Corporation for Public Broadcasting has reserved funds to assist production.

The project undertakes to develop television and related printed materials that will enhance the teaching of communication skills, mathematics skills, and reasoning and study skills. This publication is one in a series of background papers prepared to help in the conceptualization of materials for the project.

This document was developed for The Essential Learning Skills Television Project. However, its content does not necessarily reflect the position or policy of the project.

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Essential Learning Skills in The Education of Citizens

Abstract

This monograph begins with an original conception of basic education. Five criteria of this conception are used to appraise The Essential Learning Skills Television Project and to guide the proposal of ideas to strengthen the project.

The monograph assumes that to prepare students to cope with the challenges of daily living and citizenship, curricula must stress acquisition of skills in decision-making. To perform responsibly as members of various kinds of groups, citizens must acquire skills in making, judging, and influencing decisions.

Two kinds of decisions faced by citizens are featured. These are decisions about (1) factual claims and (2) group governance. Factual decisions may require gathering and evaluating information to choose between competing claims. Decisions about group governance may require use of both facts and value judgments.

A framework to guide teaching and learning of decision-making skills is presented. Instructional objectives, teaching procedures, and sample lessons are formulated in terms of the decision-making framework. Examples are given of how to teach students to make various kinds of decisions. The monograph concludes with an appraisal of the decision-making framework.

Introduction

Issues of curriculum and instruction have become front page news. Headlines proclaim concerns about declining test scores, accountability of educators, and controversial teaching methods. News reporters and syndicated columnists tell us that too many youngsters cannot read, write, or compute competently. In 1975, U.S. News & World Report and the Chicago Tribune reported that more than 23 million adult citizens had not learned skills necessary for coping with the demands of daily life. U.S. News & World Report (1974) revealed findings of the National Assessment of Educational Progress which show that 11 percent of the nation's 17 year olds are functional incompetents who cannot read a newspaper, fill out an application for a driver's license, or even read labels on medicine bottles. Some believe that even those who can cope with daily living have been short-changed by an educational system that has not stressed fundamentals sufficiently.

Public opinion reflects these educational concerns. The most recent Gallup Poll (1976) of public attitudes about our schools reveals that 51 percent believe that the most important need in public education is to "devote more attention to basic skills" (p. 189).

Educationists have tended to endorse the public clamor for more stress on the basics. However, there is disagreement and confu-

sion about the meaning of basic education. For some educators, it means a return to traditional teaching practices. To them the major flaw in most curricula is deviation from the "tried and true." They contend that to restore academic rigor we must return to McGuffey readers, more homework, and daily drills to transmit *the* fundamental facts. They urge teachers to impart information about the structure of government and civic virtue. They demand tighter discipline and an end to "educational frills" (Wellington, 1976).

This conception of basic education deserves severe criticism. It is narrow in scope, rooted in obsolete notions about instruction and learning, geared to maintaining norms rather than equipping learners to cope with change, and divorced from the experiences and concerns of children. In short, while lauding tradition, it violates a longstanding educational goal—teaching students to think and learn independently.

Many opponents of the "back to basics" movement have done little more than express dismay. Others have feigned indifference. These reactions are irresponsible. They ignore the ample grounds for concern about shortcomings in formal education.

We can and must do a better job of teaching fundamentals. However, the solution to the basic education problem cannot be found by looking backward. Rather, we need to look forward to a fresh conception of basic education that can yield far more than has been previously achieved.

An Uncommon Conception of Basic Education

We propose five criteria for basic education that can be a frame of reference for curriculum specialists. They can be used to guide selection of instructional objectives, subject matter, and teaching procedures. Lessons can be created and curricula can be compared and appraised in terms of these standards.

1. *Basic education should emphasize the acquisition of facts, ideas, and skills associated with competencies that people in our society (regardless of sex, ethnicity, social class, or other differences) need to cope with the demands of daily living.*

There is no easy formula to accommodate the design of instructional materials to suit social and cultural differences—especially as manifested in the varied socioeconomic, ethnic, and racial composition of our society. However, all people, regardless of differences, need to acquire a core of knowledge and skills to survive in our society. Beyond this core, there are basic learning experiences that people should have if they are to have a fair opportunity to thrive rather than merely survive.

We are not advocating education for conformity. We see no special value in trying to iron out differences in various groups. Rather we are arguing that certain competencies are keys to success within the dominant culture of American society. Individuals from

all groups within the society should have ample opportunities to acquire these competencies. These basic skills and facts can be stressed along with respect for and encouragement of individual and group differences.

2. *Basic education should be connected to the experiences of learners so that they perceive it as meaningful.*

Students are motivated to learn when they see clearly that what is learned in school is linked to life outside the school. A curriculum stripped to the basics does not provide education that is meaningful to learners. Indeed, a "bare bones" basic skills curriculum does not provide much valuable education even in the basics. Rather, students should learn essential skills as tools with which to solve problems in a world that is both familiar and interesting to them. Learning information and skills within a meaningful social context enhances both achievement and retention of learning (Schribner and Cole, 1973).

One way to provide meaningful learning of basic skills is to connect lessons to students' experiences with teachers, other school personnel, peers, older children, and various adults in their community. However, those who learn only in terms of immediate experience are likely to be less capable than those with expanded horizons. Thus, the curriculum should also expose learners to new ideas and information and enable them to generalize from familiar and tangible events to situations outside their immediate experience. A good basic education enables learners increasingly to expand the range of experiences and events that may be perceived as meaningful to them.

3. *Basic education should link knowledge and skills learned in one lesson to other lessons within the same grade level and subject area and, beyond that, to lessons in other grade levels and subject areas.*

This criterion stems from two concerns. First, the educational agenda of schools is already very crowded. Over the years courses in science, language arts, social studies, music, physical education, drama, and art have been added to the curriculum. Identification of core learning experiences that cut across several subject areas can help reduce overcrowding. Our second concern is that it is inefficient to compartmentalize lessons so that relationships between objectives are blurred. The more connections that can be made between knowledge and skills learned in one lesson to the competencies taught through other lessons, the more powerful the lesson—the more one can do with the learning gained from it. Forging connections between lessons reinforces prior learning and also fosters new achievements (Wiggins, 1971, pp. 93-107).

4. *Basic education should encourage active learning—the application of knowledge and skills to the completion of various kinds of cognitive tasks.*

The "application lessons" should be structured so that learners

can move from lower to higher cognitive levels, so that lower-level achievements contribute to mastery of higher-level competencies. Our advocacy of active learning is tied to the assumption that curricula that foster passive learning are less likely to facilitate retention. Furthermore, we assume that passive learning is *less* likely to yield extensive positive transfer of learning (Locatis and Atkinson, 1976, p. 21).

5. *Basic education should promote extensive positive transfer of learning.*

Positive transfer of learning means that knowledge and skills learned in one lesson can be applied to the mastery of other lessons. Furthermore, extensive positive transfer occurs when knowledge and skills learned in school can be applied to a wide range of problems encountered outside the school. We assume that a curriculum of tightly linked lessons requiring systematic active learning is likely to foster positive transfer of learning and enable students to cope with the demands of daily life (Ellis, 1965, pp. 70-72). Thus, the preceding criteria are linked to this transfer of learning. Perhaps the propensity to promote learning that transfers positively to new situations or problems, to the unknown as well as the known, is the acid test of whether a curriculum provides what is most basic in education.

The remainder of this monograph is a case study of how our conception of basic education can be applied to a problem in instructional development. We focus on The Essential Learning Skills Television Project, which has been proposed by the Agency for Instructional Television (AIT). First, we appraise the AIT formulation of "essential learning skills" in terms of the five criteria of basic education. Second, we propose a set of ideas that addresses shortcomings of the AIT proposal. Third, we use our proposal to specify instructional procedures and lessons that can serve as models for the development of television programs and related printed materials. Lastly, we evaluate our ideas in terms of the five criteria of basic education.

Appraising a Proposal to Teach Essential Learning Skills

The Essential Learning Skills Television Project aims at creating sixty fifteen-minute color television programs for fifth and sixth graders. Related printed materials will be designed to help teachers introduce the programs and to present lessons that require students to apply the ideas, information, and skills communicated via television (AIT, 1975).

The main goal of this project is to contribute to the development of essential learning skills among fifth and sixth graders. Essential learning skills are "competencies needed by students to acquire knowledge and to put it to practical use" (p. 8). The AIT project staff has specified three categories of essential learning skills—(1) communication skills, such as those involved in listening, speaking, writing, (2) mathematics skills, such as those involved in computation and measurement, and (3) study and criti-

cal thinking skills, such as those involved in asking questions, gathering information, classifying information, interpreting information, and drawing conclusions.

The AIT proposal appears to fit our conception of basic education. The skills in communication, mathematics, and critical thinking, which are the objectives of instruction, certainly would help one to cope with the demands of daily living (pp. 11-13).

The proposal also declares the importance of designing lessons meaningful to students and discusses the intention of demonstrating the purpose of lessons and the connection of academic skills to the world outside the school (pp.4-5).

The objectives of instruction stress relationships between skills both within and between each of the project's main categories of learning. "An underlying goal of the project" is to demonstrate the application of basic skills across various content areas in standard curricula in the fifth and sixth grades (p. 19).

The stress is also on active learning. The lesson design will "involve students so that it is through their own participation that they acquire as their own the skills essential to learning" (p. 20). A main assumption is that learners must apply skills to demonstrate achievement and to extend competence.

The proposal proclaims the value of positive transfer of learning and highlights the "academic skills one must have to function independently" in the world outside the school (p. 10). An overarching goal is to develop competence "to cope well with the demands of daily life and citizenship" (p. 20).

As indicated above, The Essential Learning Skills Television Project can be rated very highly in terms of our five criteria for basic education. However, there are two serious deficiencies that need remedying if this project is to conform both to its proclaimed goals and to our criteria.

One deficiency pertains to our first criterion and the AIT project's goal of teaching skills necessary for coping with the demands of daily living and citizenship. The flaw is that the critical thinking skills category of the AIT project pertains solely to empirical judgments. Skills used in clarifying and making ethical judgments and choices are not mentioned.

Curricula that purport to prepare students to cope with problems of daily living and citizenship must highlight a set of thinking skills in (1) distinguishing factual and evaluative claims, (2) clarifying alternative choices in a situation requiring a difficult value judgment, (3) using facts to assist rational decision-making about conflicting ethical beliefs, and (4) making warranted evaluations of decisions involving both factual and value judgments. We propose that efforts to develop curricula in basic education, such as

The Essential Learning Skills Television Project, broaden their scope to include these thinking skills.

The need for skills in making ethical or moral choices can be readily demonstrated by examples from the social world. For instance, these skills are basic to the choices of children who are creating and enforcing rules for a new game on the playground, who are participating with classmates in deciding where to go on a field trip, who are choosing to obey or disobey a school rule, who are resolving a dispute over the use of a toy, or who are deciding whether to allow a newcomer to join their group.

Skills in valuing—in choosing what is good or bad, right or wrong, better or worse—can also be linked to the role of adult citizens, which the school is supposed to be preparing youngsters to perform. For example, when government officials must decide about making and enforcing laws, they confront moral choices. Beliefs about what ought to be, what is better or worse, guide their choices about who will or will not receive various benefits. Citizens make decisions about what is right and wrong when they judge the performances of public officials. When citizens decide for whom to vote, they are making a value judgment, a decision that is grounded in interlacing factual and ethical beliefs. When citizens decide which groups to support and how to participate in public life, they are faced with evaluative tasks.

Planners for The Essential Learning Skills Television Project have said that helping students learn to vote and otherwise participate wisely as citizens is an important objective of instruction (AIT, p. 10). However, to achieve this objective, the project must broaden its range of concerns to include skills in critical thinking applied to valuing. As Dean Henry Roskovsky of Harvard says, "It may well be that the most significant quality in educated persons is the informed judgment which enables them to make discriminating moral choices" (1976).

A second deficiency in The Essential Learning Skills Television Project pertains to the second criterion and AIT's goal of designing instruction that is meaningful to students, so that they perceive why they should master the objectives of instruction. To maximize the likelihood of achieving this goal, one should create lessons that place skill learning systematically within a relevant social context. For example, critical thinking skills applied to factual judgments and choices and to value judgments and choices might be cast within a conceptual framework that subsumes both sets of skills, highlights their linkages, and requires their application to meaningful examples of social life.

Such a framework would imply direct reference to social reality and would help to make formal learning more relevant to nonacademic experiences. It would present essential learning skills in the context of obvious practical problems. It would demonstrate that tools of thinking and learning introduced in the class-

room are valuable in life outside the school. It would identify the problems and techniques of the school with those encountered in daily living. Thus, such a conceptual framework would facilitate both skill learning in school and the positive transfer of the acquired skills to other social settings.

The phenomenon of decision-making can serve as a conceptual framework for teaching the essential skills of critical thinking in factual and value judgments. How is decision-making—choosing among two or more alternatives—associated with essential learning skills? How can a conceptual framework about decision-making be used to teach essential learning skills? To answer these questions we first consider how people are involved in decision-making in everyday life and then discuss how to use a decision-making framework to guide the development of instruction.

Teaching Essential Skills Through Decision-Making

As members of various groups (families, schools, businesses, cities, states, nations), all individuals face two kinds of decisions involving essential learning skills. First, we face decisions about what the facts are. This kind of decision-making may involve gathering and evaluating information to choose between alternative claims about reality. Second, we face decisions about the governance of groups to which we belong. These decisions may involve the use of both facts and value judgments to choose among alternative courses of action or policies. Let us examine both kinds of decisions.

Making Decisions About Facts

From an early age, we are constantly faced with the challenge of deciding about factual claims. Through television, radio, the press, as well as interactions with friends at home, work, and school, we are bombarded with often competing assertions about reality. We hear, for example, that increasing taxes will help curb inflation, or that drivers on the busy street near the school ignore the speed limit signs there, or that the United States is dangerously far behind the Soviet Union in military strength, or that older kids on the next block pick on the fifth graders. What are the facts?

Deciding about factual claims can be a very simple or a very complex exercise. Seemingly any factual claim may be resolved yes or no. For example, it usually would not be very difficult to make a decision about such factual claims as: it is raining, the Mayor is a Republican, the city owns school buses. However, it might be somewhat more difficult to make a decision about these factual claims: it will rain tomorrow, the Mayor is liberal, the city will use its buses this fall to promote racial integration. It would be very difficult to make a decision about these factual claims: the government cloud seeding program will cause rain, the Mayor's decision to raise taxes will curb inflation, busing to achieve racial integration promotes equality of educational opportunity.

Difficulties in making accurate decisions about the validity of some factual claims can arise from many factors. The opportunity for direct observation or experience may be limited. The variables and conditions (e.g., inflation, cloud seeding) involved in the claim may be very complicated. The level of our knowledge about, or our ability to accurately define or measure, a variable may be very limited. For example, social scientists are divided over what equality of educational opportunity means and how to reliably and validly measure such a variable.

Often the citizen's decision-making task is clouded by self-serving people who present biased information in support of a public policy or course of action that benefits them. Furthermore, the same information can be and often is introduced to support very different factual claims. And even in today's information-rich environment, data about factual claims may be incomplete and hard to obtain.

What thinking skills are associated with making decisions about factual claims? Clearly such decisions should be made on the basis of the best available evidence. This implies an ability to gather and evaluate data relevant to the decision. It further implies an ability to efficiently process and reflect upon information obtained and a capacity to draw reasoned conclusions from that information. Citizens with these skills will be better equipped to make decisions about factual claims than those without.

Skill in making decisions about factual claims can have an important bearing on many aspects of our behavior as citizens. For example, deciding that increasing taxes will curb inflation could lead us to vote for candidate X instead of candidate Y. Or determining that the older children do indeed pick on fifth graders could influence decisions about organizing one's peers to walk in a "caravan" to school. Or determining that drivers do ignore the school speed limit could result in a complex set of decisions for parents on how to influence city officials to install traffic lights by the school. Only when we have learned to determine what the facts are can we go on to make competent decisions about group governance that also involves ethical and moral choices.

Making Decisions About Group Governance

Choices related to the governance of groups pertain to making rules, setting goals, or distributing important things to members of a group.* Part of governing any group—whether it be students

*To say groups or collectivities "make decisions" is a useful shorthand. And, indeed, to say the "League of Women Voters decided X" or the "City Council decided Y" is correct. Groups do make decisions. However, it is important to recognize that "the group is constructed as a pattern of individual acts. An act is always that of a single person, and when we speak of 'group acts' a pattern formed by individual acts is to be understood." Harold D. Lasswell and Morton Kaplan, *Power and Society*. (New Haven: Yale University Press, 1969), p. 3.

in a classroom or citizens in the United States—is making rules that specify and regulate the conduct of group members (Remy, 1976). Examples include making a law allowing 18-year-olds to vote, making a rule that students should not run in school halls, and establishing a 55-mile-per-hour speed limit on all interstate highways.

Another important element in governing any group is allocating and coordinating the distribution of resources within the group, such as wealth, food, health, and power. Examples include establishing a Social Security system for citizens, raising property taxes, or giving some teachers and their students more supplies than others.

A third aspect of governing any group is defining a group's goals and the means to attain them. Examples include setting the goal of landing a man on the moon by 1970 or deciding to raise funds for civic improvements by selling municipal bonds.

Decisions about group governance involve both factual and value considerations. Should a school principal or teacher make rules that restrict individual rights but promote orderly behavior? Or is it more important to risk some disruptive behavior to protect individual rights? Should the United States allocate limited resources to build supersonic bombers or mass transit systems? Decisions about rules, goals, or resources require factual decisions (e.g., the students are unruly, the old bombers are obsolete). They also involve weighing facts in terms of values or moral principles (e.g., freedom of speech or American prestige). Thus, in making decisions about group governance, value judgments—what is good or bad, right or wrong, important or unimportant—cannot be avoided.

Decisions about group governance are collectively binding in that they are potentially enforceable for all the members of the group. Collectively binding decisions that make rules, allocate resources, or set goals for groups may affect our lives in many ways. They may affect our health, as when pure food and drug laws are passed, or our wealth as when tax laws are changed. Or such decisions may affect the power individuals possess, as when women secured the right to vote. Figure I summarizes our view of decision-making about group governance.

Decisions about group governance consist of four irreducible elements. These elements constitute a generalizable problem-solving routine that involves a variety of essential thinking skills and is

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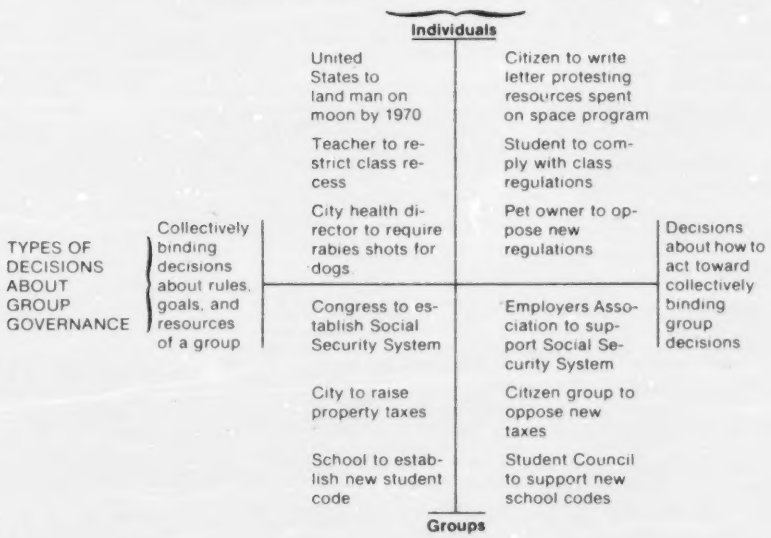
Thus, the basic units of decision-making are individual human beings in whose heads the mental activities associated with deciding takes place. The League of Women Voters' decision to do "X" or "Y" is the result of the pattern of individual values, attitudes, behaviors, and choices made by the League membership involved in the decision, rather than the choice of a living organism called the League of Women Voters.

applicable to a wide variety of decisions. These four elements are described below.

1. *Confrontation with the need for choice—an occasion for decision.* An occasion for decision is a problem situation where the solution is not obvious. For example, President Johnson learns that the North Koreans have seized the United States ship Pueblo, or a group of fifth graders have their ball and bat taken away by older students on the playground.
2. *Determination of important values or goals affecting the decision.* For example, in the Pueblo case, one goal might be to avoid war with North Korea while saving American sailors. In the playground case, one goal might be to avoid being beaten up while recovering the ball and bat.
3. *Identification of alternative courses of action.* For example, should one negotiate with North Koreans, attempt to free sailors by force, or seize a North Korean ship in reprisal? Should one fight for the ball and bat, complain to teachers on recess duty, or give up and play another game?
4. *Predicting the positive and negative consequences of alternatives in terms of stated goals or values.* For example, rescue of sailors by force could lead to war. Fighting for the ball and bat could result in being beaten up.

In any situation, the elements of decision-making may apply unequally. For example, in some situations one may know the available alternatives, but be unclear as to what one's goals really are. In other situations, the heart of the decision-making task may be to think creatively of alternatives for reaching a clear and long-

Figure I
Who Makes Decisions About Group Governance


Individuals
United States to land man on moon by 1970
Citizen to write letter protesting resources spent on space program
Teacher to restrict class recess
Student to comply with class regulations
City health director to require rabies shots for dogs
Pet owner to oppose new regulations
TYPES OF DECISIONS ABOUT GROUP GOVERNANCE
Collectively binding decisions about rules, goals, and resources of a group
Decisions about how to act toward collectively binding group decisions
Congress to establish Social Security System
Employers Association to support Social Security System
City to raise property taxes
Citizen group to oppose new taxes
School to establish new student code
Student Council to support new school codes
Groups

standing goal. In yet other situations, alternatives and goals may be clearly known, but the real challenge is to predict accurately the consequences of alternatives.

Making decisions about factual claims is intertwined with making decisions about group governance. Assessing alternatives involves factual decisions about the likely consequences. Disagreements may, and frequently do, arise over what the consequences of different alternatives are likely to be. For instance, much of the controversy over whether or not the United States should have built a supersonic transport plane revolved around what the consequences of such a policy would have been.

Making value judgments also is an important facet of decisions about group governance. We make value judgments when labeling consequences as negative or positive. While establishing goals, the decision-maker engages in clarification of values and ethical reasoning. This clarification involves asking, "What do I want, and what is right or wrong in this situation?" Decision-makers who lack skill in clarifying and analyzing their values may establish goals or choose alternatives that unwittingly contradict their values.

How People Relate to Decisions About Group Governance

As citizens, we may be involved in decisions about group governance in three ways. First, we make decisions related to group governance, as when we help formulate new goals for our community club, or when children decide on new rules for a playground game ("if it lands on the line, it's out; if you touch the tree, you're safe").

In addition, we often make decisions alone, or with others, about how to act toward group decisions about rules, goals, or resources. For instance, we have to decide whether to obey the law and pay our taxes. Students may decide whether to ignore school rules and run in the hallway. We may have to decide whether to join a citizen's group protesting higher taxes. During the 1960's many young men made an important decision when they refused to fight in the Vietnam War. These young people had to go to Canada or perform some other kind of service at home. Many other young men also made important decisions about the Vietnam War; they joined the army or accepted the government's decision to draft them. All these young men were deciding how to act toward a collectively binding decision about the governance of the United States.

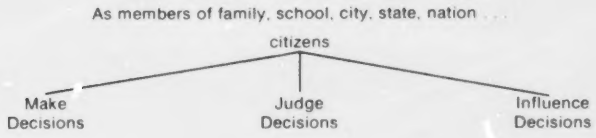
A second way citizens may take part in decisions about group governance is by attempting to influence them. This occurs when someone tries to talk a neighbor into voting for a candidate he favors for public office or when a child tries to influence a peer to accept new rules for a playground game. Unfortunately influencing political decisions often connotes bribery, graft, unfairness,

and images of the political boss. Actually, it is a basic feature of social life and is neither good nor bad by itself. Whether at the breakfast table, at a playground, at a faculty meeting, or through the news media, attempts to influence decisions make up a significant part of our environment. People are constantly attempting to influence decisions about rules, resources, and goals that affect them.

A third way citizens may be involved in decisions about group governance is by making judgments about them, as when we judge it a mistake for the President to veto a new law, or as when a child decides it is unfair that the teacher canceled recess. To judge something is to decide its worth. Whether by reflecting upon the wisdom of decisions about intervention in Southeast Asia or by complaining about a teacher's decision regarding a field trip, all citizens must judge decisions.

Figure II summarizes how citizens are involved in decision-making about group governance. Individuals who possess skills in making, judging, and influencing decisions are more competent to cope with the responsibilities of citizenship than are those without these skills. How can these skills be taught most effectively?

Figure II
The Tasks of Decision Making



Instructional Objectives and Strategies

Our decision-making framework can be arranged into three categories of skills basic to competent citizenship. (See Figure III.)

Figure III
Decision-Making Skills for Citizens

Category One	Category Two	Category Three
Focusing Attention On Decision-Making	Making Decisions About Factual Claims	Making Decisions About Group Governance
A. Becoming aware of decision-making	A. Deciding what question to ask	A. Deciding what goals a group should have
B. Using a frame of reference to think about decision-making	B. Deciding how to gather information	B. Deciding what rules a group should have
C. Spotting different kinds of decisions	C. Deciding how to organize information	C. Deciding what the distribution of resources within a group should be
	D. Deciding how to interpret information and make conclusions	D. Deciding how to influence group decisions
	E. Deciding the worth of factual claims	E. Deciding the worth of group decisions

These categories can help select instructional objectives and create lessons that facilitate learner achievement.

Instructional Objectives

Each category of Figure III implies a set of instructional objectives, which are the essential skills students are expected to acquire.

The following discussion of objectives denoted by the categories is not definitive; the listing of objectives is not exhaustive. We are merely trying to show how our decision-making framework can be used to generate objectives. Other suitable objectives may be formulated in terms of the categories.

Category One Objectives. Category One is an introduction to decision-making as a basic element of citizenship in our society. This introduction involves development of learners' awareness of the pervasiveness and significance of different kinds of decisions in daily life. The main goal is to establish a context that facilitates acquisition of decision-making skills.

To perform Category One tasks, learners must be able to spot decisions that may be important to them, such as voting for a leader of a group, making rules for a group, deciding whom to believe when facing conflicting claims about an issue, deciding whether or not one's rights have been infringed upon, or deciding how to take action to redress grievances. Learners should be helped to identify significant decisions in their lives, as well as significant decisions faced by adults, and to see the links between the decision-making of children and adults.

Performance of Category One tasks also involves distinguishing between strictly factual decisions and those involving both the factual and the ethical. Deciding whether a majority of Americans voted for the Democratic or Republican candidate in a presidential election is a strictly factual matter, and deciding for whom to vote ought to involve consideration of pertinent facts. However, this second kind of decision also involves choices about competing moral or value claims.

Category One implies instructional objectives such as the following. Instruction will help learners to:

1.1 Identify examples of important decisions encountered in everyday living.

1.2 Distinguish decisions about strictly factual claims from those that involve moral or ethical claims.

1.3 Identify the essential features of any decision-making situation.

Category Two Objectives. Category Two involves development of skills needed to make decisions about factual claims. The main

goal is to help learners determine what is, what was, or what might be.

To perform Category Two tasks, learners develop certain critical thinking skills. For example, learners must acquire skills in asking and answering questions. They must be able to ask significant questions about facts, such as what the rules governing a public election are. They must acquire competence in locating, organizing, and applying information to factual problems or questions. They must develop skills of determining the grounds for supporting or rejecting factual beliefs.

Ability to perform Category Two tasks can be shown by locating and using sources such as newspapers, magazines, and encyclopedias to gather pertinent information. Category Two tasks also involve such skills as interpreting graphs, charts, tables, and maps and also the ability to decide what information can or cannot be used as valid evidence to support or reject a factual claim made by a newspaper writer, an advertiser, or a politician.

The most sophisticated kind of Category Two skill is represented by the ability to detect fallacious arguments about factual beliefs—e.g., distinguishing fact from opinion, logical inconsistencies, and various kinds of propaganda in political arguments or in advertising.

The learning of Category Two skills can proceed simultaneously with the development of basic reading skills. Ability to interpret the meaning of paragraphs, to acquire and use concepts, and to use information to answer questions are examples of reading skills applicable to making decisions about factual claims.

The following are examples of instructional objectives denoted by Category Two. Instruction will help learners to:

2.1 Ask questions that can be answered with a factual claim.

2.2 Formulate questions to facilitate the gathering of valid evidence.

2.3 Locate information pertinent to a question about a factual claim.

2.4 Process information according to categories that will help answer a question about a factual claim.

2.5 Judge information in order to apply valid evidence to the support or rejection of a factual claim.

2.6 Detect fallacious arguments in support of a factual claim.

Category Three Objectives. This category is about citizens' actions to create, maintain, and change groups. The main goal is developing skills in making decisions about political life in groups.

Political decisions involve an interlacing of factual and moral be-

liefs. Decisions about what is, was, or might be are blended with choices about what ought to be. Thus, to acquire skills in group governance, learners must develop competence in making and fusing decisions about both factual claims and ethical or value claims.

Political decisions often require tough choices between conflicting values. Many environmental issues involve value conflicts in which there is no clear right and wrong. Decision-makers may have to choose either clean air and water or production and jobs. Most people agree that pollution by factories is bad; they also tend to agree that unemployment and a big drop in factory output are bad. At times, the problem has been to decide how to limit pollution enough to protect health and the environment while still maintaining production and jobs. Making a decision in a conflict between economic and ecological values requires careful consideration of alternative factual and ethical claims.

To perform Category Three tasks, one must learn skills of clarifying the factual and ethical aspects of a political decision. These clarification skills are necessary to achieve competence in systematically making political decisions. The "Decision Tree" is an analytical tool that can help students learn to clarify and make decisions. (See Figure IV.) The Decision Tree is derived from a social science problem-solving technique used to create maps of possible alternatives and consequences (Fishbein, 1972, pp. 19-41). The results of this process look like a branching tree. By using the Decision Tree students can have direct experience with clarifying and making choices.

Figure IV shows moves learners make in using the Decision Tree to analyze a decision about how to cope with the class bully.* Learners start at the trunk or "occasion for decision." They next consider the alternatives and then move into the branches to consider possible negative and positive consequences of each alternative. When considering these consequences, learners make factual judgments about what might be; these judgments are linked to factual claims about what is and what has been. At the top of the tree, learners consider what is good or bad about each alternative and its likely consequence. Thus, the decision-makers must weigh alternatives and their consequences in terms of values they assign to the problem. This consideration of good and bad requires ethical or value judgment.

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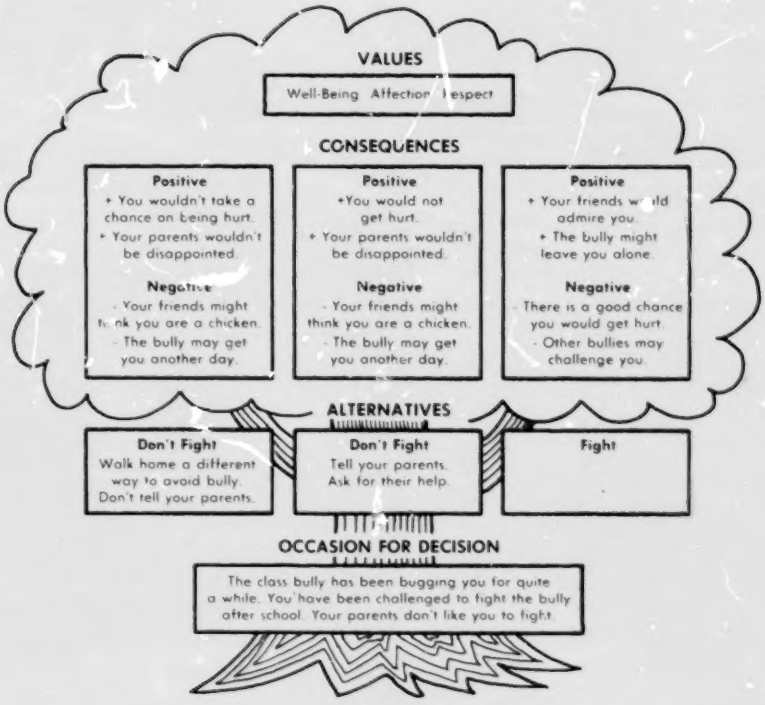
*The Decision-Tree device as used here was developed by Roger LaRaus and Richard Remy as part of the work of the Citizenship Development Program at the Mershon Center, The Ohio State University. The effectiveness of this device accounts for the fact that it is currently being used in a variety of learning contexts. The device is based on a well-known concept used in management science and decision-theory. See, for example, Fishbein (1972) and Raiffa (1970). The adaptation of this concept to the purposes of elementary learning situations was conceived and implemented by Drs. LaRaus and Remy. The device is used in this text with their permission.

Figure IV
The "Decision Tree"


VALUES
Well-Being Affection Respect
CONSEQUENCES
Positive
+ You wouldn't take a chance on being hurt.
+ Your parents wouldn't be disappointed.
Negative
- Your friends might think you are a chicken.
- The bully may get you another day.
Positive
+You would not get hurt.
+ Your parents wouldn't be disappointed.
Negative
- Your friends might think you are a chicken.
- The bully may get you another day.
Positive
+ Your friends would admire you.
+ The bully might leave you alone.
Negative
- There is a good chance you would get hurt.
- Other bullies may challenge you.
ALTERNATIVES
Don't Fight
Walk home a different way to avoid bully. Don't tell your parents.
Don't Fight
Tell your parents. Ask for their help.
Fight
OCCASION FOR DECISION
The class bully has been bugging you for quite a while. You have been challenged to fight the bully after school. Your parents don't like you to fight.

The process shown in the Decision Tree can be applied to the various tasks of group governance shown in Figure III and can help one clarify and make decisions about the goals or rules for a group and the distribution of resources within the group. The Decision Tree also can be applied to choices about influencing and judging group decisions.

Skills needed to influence group decisions can be linked to the development of basic speaking and writing skills. Ability to write a clear letter to a public official or to the editor of a newspaper, to make a persuasive speech, or to articulate ideas effectively in a group discussion are examples of communication skills applicable to influencing group decisions.

The following instructional objectives are examples of the skill learning objectives implied by Category Three. Instruction will help learners to:

3.1 Identify decisions about group governance.

3.2 Identify components of a political decision as shown in the Decision Tree.

3.3 Use the Decision Tree to clarify choices about factual and ethical claims pertaining to group governance.

3.4 Use the Decision Tree to analyze and judge decisions made by others about some aspect of group governance.

3.5 Use the Decision Tree to make choices about aspects of group governance.

3.6 Participate in making political decisions for a group as a member of the group.

Thus objectives of instruction might be generated in terms of our three categories of decision-making skills. The next step is linking these categories to an instructional strategy that might aid achievement of the objectives.

Instructional Strategy

An instructional strategy is a set of ideas about how to bring the changes in ability described by objectives. Figure V shows the main features of an instructional strategy derived from Gagné and Briggs (1974, pp. 121-136) geared to help learners perform successfully in terms of our three categories of decision-making skills. The instructional events in Figure V fit our conception of basic education. They are designed to help learners perceive the relevance of lessons, see links between objectives of instruction, use skills as they learn them, and transfer skills to fresh problems.

Focusing Attention. An instructional sequence should begin with a "mind-grabbing" event that fixes learners' attention, arouses their curiosity, motivates them, reveals clearly the skills they are expected to learn, and shows the relevance of the skill to be acquired. Telling learners at the outset of instruction what they are expected to achieve, and why, enables them to learn more effectively and efficiently. Knowing the point of instruction helps the learner to stay on track, to attend to what is relevant to the assigned task. Furthermore, it appears that knowing why it is valuable to achieve certain competencies and how they are applicable to important concerns of the learner is a strong motivation. For example, learners who understand why development of decision-making skills is necessary to do things that they value are likely to try hard to acquire these competencies (Popham and Baker, 1970, pp. 80-82).

Figure V
Main Features of an Instructional Strategy

Instructional Events	Intent
1. Focusing attention on a learning task	Providing learners with a sense of purpose
2. Making connections to preceding lessons	Reinforcing prior learning and setting the stage to extend it
3. Providing practice to foster achievement	Fitting instructional procedures to objectives
4. Requiring application to demonstrate achievement	Assessing student performance in terms of objectives
5. Providing extra instruction for remediation or enrichment	Providing opportunities to eliminate learning deficiencies or to extend achievements

Making Connections to Preceding Lessons. To facilitate learning, a lesson should link prior and current instruction, so that the student can remember relevant skills gained earlier and relate them to the new situation. This strategy not only facilitates new learning, but reinforces the prior learning and enhances its retention. In addition, learning and thinking in terms of a tightly linked framework of ideas and skills is likely to help the learner to inquire more deeply into a problem and to apply problem solutions more broadly than would be possible otherwise (Bruner, 1960, p. 31).

Providing Appropriate Practice. Students must have opportunities to practice skills. If the objective is to analyze and judge political decisions in terms of our Decision Tree, then learners should be given sufficient practice in applying the tree to case studies of groups making decisions about rules, goals, or the distribution of resources. If the objective is to locate information pertinent to a question about a factual claim, then learners should be engaged in information-locating activities which enable them to achieve the objective (Popham and Baker, pp. 82-87).

Lessons should require active learning that is reinforced. As students use data, ideas, and skills to complete exercises, they should obtain knowledge of results as soon as possible. This regular feedback reinforces correct responses and alerts the learner to deficiencies that must be remedied before instructional objectives can be achieved (Skinner, 1968, pp. 141-44; 206-12).

Requiring Application. To demonstrate learning, students must be able to perform the activities described by objectives. Lessons that require students to use skills acquired during previous activities to complete new, related problems are tests of the achievement of objectives. For example, after practicing with the Decision Tree, learners should be asked to apply this analytic tool to a fresh case study. If they show competence in dealing with the new problem, we can then assume that they are acquiring the skills described by our objectives (Ehman, Mehlinger, & Patrick, 1974, pp. 113-18).

Skills in decision-making are applicable to various and perhaps yet unforeseen academic and practical problems. The most valuable possible outcome of instruction designed to prompt transfer of these skills would be learners who can use them independently to solve various kinds of problems.

Providing for Remediation and Enrichment. Learners who fail to achieve objectives should have an opportunity for remedial instruction. For example, some might fail to analyze a case about some facet of group governance, because they cannot read graphs and tables to derive evidence to support a factual claim. If so, additional instruction to remedy the deficiency is necessary to help the failing learner to succeed.

To accommodate learner differences, enrichment lessons may be necessary to occupy faster learners while the slower ones acquire the basic skills. These lessons can enable faster learners to further extend their abilities.

Creating Lessons

To demonstrate the practicability of our abstractions about curriculum and instruction we should present examples of lessons. First we discuss the uses of television as an instructional medium and then present examples of lessons to be transmitted via this medium.

Using Television and Related Print Materials

Various instructional media are suitable for teaching essential learning skills for citizens. However, there are several compelling reasons for featuring educational televison programs.

First, television is an important part of the daily routines of our youngsters. They spend about one fifth of their time watching television (Rubin, 1976, p. 51). They tend to rate television as more influential than parents, teachers, or peers in shaping their beliefs (Chaffee, Ward, and Tipton, 1970, p. 659). Television also appears to be the main source of political information for most children in the sixth and seventh grades (Dominick, 1972, p. 55). Through educational efforts such as The Essential Learning Skills Television Project, we have tempting opportunities to take advantage of children's television viewing proclivities. We might use this medium to develop skills needed for apt performance as a citizen.

Second, television has potential to be the most influential medium of instruction. The instructional power of television can be a negative or positive force in our society; it may be used either to control or to liberate the minds of our people. To harness positively the force of this medium we need to help children learn to organize and interpret their perceptions. Through activities such as The Essential Learning Skills Project, we have opportunities to engage youngsters systematically in developing thinking skills and applying them to classroom television. Presumably these skills will be transferable to commercial television and to other media.

Third, television is the medium most likely to enable teachers and learners to bridge the gap between the abstractions of formal education and the social reality to which the abstractions can be applied. Too often, formal learning has no concrete referents. Thus, lessons often are not as meaningful as they might be. For example, students may display facility with words that they can not apply to any phenomena. They have learned empty verbal constructs, which they are not able to use to organize and interpret events. They know the words, but they have not acquired concepts.

Television can link the intellectual tools that are the substance of formal learning with social reality. Such a link is bound to enhance student achievement, since learning is more effective when new information and ideas can be acquired in context (Schribner & Cole).

A fourth compelling reason for featuring educational television is to portray positively people using essential learning skills. Several studies indicate that "children who watch programs that depict positive social behavior will act according to these examples" (Liebert & Poulos, 1972, p. 123). Thus, instructional developers, such as those in The Essential Learning Skills Television Project, can prompt students to acquire attitudes and skills through role-modeling, a process through which "a person patterns his thoughts, feelings, or actions after another person who serves as a model" (Bandura, 1971, p. 214).

In addition to facilitating the acquisition of critical thinking skills through portrayal of memorable role models, television can also be used to teach exemplary group governance behavior. For example, role models of participants in groups might be presented for learner analysis and evaluation. In some cases, role models can be presented so that learners might later emulate them during role-playing activities. Through role modeling of this kind, learners can acquire techniques of leading and following that would enhance the political life of the groups to which they might belong.

Television should be used in combination with printed materials to carry out the events in our instructional strategy (See Figure IV). Printed materials can be used to present skill learning exercises, to structure problem-solving lessons, and to guide role-playing and gaming activities that provide appropriate practice and application of skills.

In general, on-screen and off-screen events might be blended three ways. First, a television program can be used to focus learners' attention on a skill-learning task and to provide them with a sense of purpose. Questions can be raised that might be answered through off-screen instruction using printed materials.

Second, television programs might be used to teach a skill in a systematic, step-by-step style. For example, people can be depicted using skills in various activities that the viewing students will also be asked to participate in after the program, such as role playing or solving problems posed by the printed materials. Another way to teach skills systematically is to provide practice by posing mini-problems, to which learners would respond as they watch the program. Similar problems can be presented in printed materials to provide additional practice. This approach might be especially suitable to teaching skills associated with making decisions about facts.

Third, on-screen events might be used to present dramatizations of cases about some aspect of group governance. Some cases might be open-ended, and viewers would be challenged to make a decision for the group. Some cases might be presented in which the group makes a decision that viewers would be asked to analyze and evaluate. Instructions to guide analysis, evaluation, and decision-making can be presented to learners in print. This approach might be very appropriate to performing skills involved in group governance tasks.

Ideas for Lessons

The following are examples of lessons that might be presented via television and related printed materials.*

A Category One Lesson. Here is an example of a lesson whose overall goals are to help students develop awareness of decision-making in their environment and to discover the concept of alternatives. The specific objective of the lesson would be to have students document their own decision-making activities by compiling a log of the alternatives they face and decisions they make in a single day. The lesson could be divided into three stages: starting the lesson, developing the lesson, and ending the lesson.

To start the lesson the teacher could advise students that they are decision-makers who are about to make some important choices. Using their own paper individually, or the chalkboard if a group exercise is preferred, students would list alternatives for several decisions such as: (1) "If you had ten dollars, what would you do?" (2) "If you were challenged by the class bully to a fight what could you do?"

To develop the lesson, students would view a television program portraying highlights from a day in the life of a typical student. The program might show the student deciding what jacket to wear to school, what to eat for breakfast, whether or not to ask the teacher for help with some math problems, or whether to play ball or practice piano lessons after school. Before showing the program the teacher would distribute printed decision forms to each student. Working alone or in small groups, students would use the form to identify alternatives and decisions faced by characters as the story progresses. Instructions for using the forms could be put in the program at the appropriate intervals. A teacher's guide would list a set of questions to guide a class discussion of the completed decision forms at the conclusion of the program.

To conclude the lesson, blank decision forms would be distributed to each student. Students would be instructed to use these

*Many of the examples described here are taken directly or adapted from Roger LaRaus and Richard C. Remy, *Citizenship Decision-Making: Skill Activities and Materials* (Menlo Park, California: Addison-Wesley: Innovative Publications Division, forthcoming). These lessons have been field tested in several schools in Ohio. We are grateful for permission to use them here.

forms to keep a log of the decisions and alternatives they faced during the following day. These completed logs would be the basis of subsequent class discussions and a springboard for additional lessons.

This lesson could be correlated with various areas of standard curricula. Students, for example, could use decision forms to identify alternatives and decisions faced by cave people thousands of years ago, or by historical figures such as Christopher Columbus, Pocahontas, or President Lincoln, or by other individuals or institutions currently under study in the social studies curriculum.

The lesson could correlate with the language arts and art curriculum by having students draw and write a comic strip about a character (themselves, a fellow student, a cat, dog or other imaginary creature) who faces many alternatives and choices in a day, or by having the students publish a short newspaper with articles about decisions made by class members.

The lesson could also be correlated with the teaching of reading. For more advanced students, the Robert Frost poem, "The Road Not Taken," could be used to generate a discussion about alternatives. In addition, a teacher's guide could contain an annotated list of sections of widely available reading texts that correlate with the lesson context. Here are three examples of such correlations with reading materials.

Kaleidoscope (W. K. Durr, *et. al.*, Boston: Houghton Mifflin Co., 1974). B. Cleary, "Henry and the Night Crawlers," pp. 124-141.

A day in the life of a young boy named Henry Huggins. Henry is faced with a multitude of decisions about how to spend his money and how to earn the money he needs to buy a new football. A friend comes over to play and Henry accidentally loses the friend's brand new football. He tries hard to think of ways he can earn enough money to replace the friend's football. He finally decides to catch night-crawlers for a neighbor at one cent each, a hard job with low pay. After he has earned enough money to buy his friend a new football, the missing football appears and Henry has enough money to buy himself a football. Students can discuss the many alternatives Henry faced in one day because of one incident.

Images (W. K. Durr, *et. al.*, Boston: Houghton Mifflin Co., 1971). K. Robertson, "A Day in the Life of Henry Reed."

Henry Reed is spending the summer with an aunt and uncle in Grover's Corner, New Jersey. Henry finds plenty to fill the daily journal he is keeping. His entry in a daily log is exemplary of the many alternatives a young person can be faced with in one day.

The Open Highways (H. M. Robinson, *et. al.*, Chicago: Scott, Foresman and Co., 1966). J. Mitchell, "The Best Place for a Dinosaur Bone," Book 5, pp. 197-207.

Finding a place to keep a dinosaur bone is more difficult than one would guess. Kenji is creative in making up alternatives, but they are unacceptable to others. The story lists many alternatives; *but students might be able to make up some more.*

A Category Two Lesson. Several lessons could be designed to focus on tasks of making decisions about factual claims—that is, about what is, what was, or what might be. One example would be a lesson designed around types of fallacious reasoning, or propaganda techniques, such as overgeneralizing and making conclusions about an individual from aggregate data. The overall goal of this lesson would be to help students acquire skill in detecting fallacious arguments in support of a factual claim. The specific objective of the lesson would be to have students identify seven propaganda techniques—name-calling, glittering generality, transfer, testimonial, plain folks, card-stacking and bandwagon—in a series of short cases.

The lesson could follow a "rule-example-application" instructional technique. That is, the definition (rule) of each propaganda technique would be presented. Then two or three examples of the definition would be given. The sequence would be culminated by having learners apply the definition (rule) to fresh examples. Additional practice and application exercises could be provided through printed handouts from a teacher's guide. Some of these exercises could correlate with existing curricula.

To start the lesson, students could be provided with a printed handout with exercises to introduce them to the seven propaganda techniques. This handout would provide the rule for each technique and serve as a guide for the program to follow.

To develop the lesson, a televison program depicting a series of fallacious factual claims made by competing politicians, bureaucrats, business advertisers, or children in everyday life settings could be presented. Throughout the program students would be called upon to spot examples of propaganda and to identify the specific technique being used. During the program stop action, narrator comments and replays could give students the opportunity to demonstrate competence through appropriate practice and application.

To conclude the lesson, students could be given printed handouts that would assist them in applying what they had learned to an analysis of the techniques of a local advertising or political campaign.

This lesson could have several possible linkages to the social studies curriculum through material on consumer education and current events. In addition, the role of propaganda techniques in American history could be explored. Language arts could be reinforced by having students, individually or in groups, find

examples of one or more of the propaganda techniques they learned about in the lesson.

A Category Three Lesson. Here is an example of a lesson focused on group governance tasks. The specific objective of the lesson would be to have students apply a Decision Tree to choices about group governance. The lesson presupposes that students have been taught about supporting and rejecting factual claims.

To start the lesson, the teacher would use transparencies of completed Decision Trees on problems of interest to children. The teacher could lead students through several Decision Trees step by step. This could be done by using covered transparencies and starting at the bottom, uncovering the tree one step at a time. After the students have gained experience with "climbing" a Decision Tree, blank Decision Trees could be distributed to the class. Then, working individually or in small groups, the students could use the Decision Tree to analyze decisions they face in their daily lives, such as:

What to do with friends one afternoon.
Whom to invite to a birthday party.
Whether to join (or quit) Scouts or a club.
Where to go on a field trip.
What to do if your friends don't like each other.
What rules should be for a game with few players.
Who gets to use what equipment or toys.
How to raise money for a group.
Who is team captain.
Who gets to play.

To develop the lesson, students could view a series of television programs that thrust them dramatically into decision-making situations. For example, here are three "decision dilemmas" which cut across different levels of group life from the personal and immediate to those more remote from the child's experience.

—You and some friends get together to play ball. You all go to a good playing place far from your home. When you get there, some tough big kids are hanging around. Suddenly one of them takes the ball away from you and tosses it to a friend. They will not give it back. What can you do?

—You are a school principal and art supplies are scarce. Some teachers say their students need art supplies the most. Other teachers say that it does not matter who needs supplies most, that you should divide remaining supplies equally among all the teachers. What will you do?

—You are the leader of a big, strong country. A small, far away country has captured one of your ships and its crew. The small country does not like your country and is using your ship and keeping your crew in jail. They say if you attack them they will sink the ship and hurt your crew. The other

countries of the world, both friends and enemies, and the families of your crew are waiting. What will you do?

Students could be given printed handouts of Decision Trees to guide their responses to such programs. Teachers could decide whether their class should attempt to "climb" Decision Trees for these problems in small groups, individually, or as a whole, under their coordination. Instruction could be individualized by having some students work alone, some in small groups, and others in a team under the teacher's guidance.

The Decision Tree is adaptable to a wide array of problems and instructional techniques. For example, as an alternative or complement to the above, a television program could be presented about a city council trying to decide whether or not to prohibit swimming at a large lake. The city health officer has presented evidence of pollution in the lake that might be dangerous to the health of swimmers. However, the city's businesses, which depend on tourist trade, could be damaged severely if the council decides to ban swimming in the lake. Furthermore, the pollution levels are not so high that the danger to swimmers is certain.

In this case, the city council faces a decision in which basic environmental and public health values are in conflict with basic economic values. How should the council decide in this issue of group governance?

Printed materials that structure a role-playing simulation of this occasion for decision could be distributed to learners. Different learners could play roles of council members, public health officials, city businessmen, and representatives of various interest groups. Others in the class could be designated as systematic observers and recorders of the action occurring during the simulation. The outcome of the simulation would be a decision by the city council. Learners could practice and extend their skills after the session by analyzing and evaluating the role behavior which occurred during the simulation.

To conclude the lessons, students could review the idea that in making a decision it helps to ask three questions: (1) What do I want? (goals); (2) What alternatives are there? (alternatives); (3) What do the alternatives cost? (consequences). A transparency or printed handout entitled "What Can You Ask?" could be displayed. The transparency or handout would confront students with problems like the following:

> You are in a class working. The teacher is helping someone. Your friend Wanda wants you to toss a paper airplane across the class to her. *What can you ask?*
>
> As mayor of your community you must decide whether to buy a new fire engine or add to the community library. You do not have enough money to do both. *What can you ask?*

The teacher would ask students to apply the three questions to each problem. A class discussion could follow on how the three questions help in making decisions in each case.

The skill in this lesson, or set of lessons, could be correlated with other areas of the curriculum in many ways. Here are a few examples.

The lessons could be correlated with social studies instruction by having students identify government officials who make political decisions for their state or community. Students could write to them—thereby enhancing language arts skills—and ask for information concerning the kinds of decisions they have to make that concern the governance of groups. Students might also ask what the most difficult decisions they make are.

The lesson could be correlated with art instruction by conducting an art project, wherein the class members could produce cardboard decision trees that might be cut apart as puzzles. Students could then re-create the decision-making process in putting together each other's puzzles.

The lesson could be correlated with reading instruction by using stories in children's readers that concern characters facing a series of decisions. The stories could be used to practice reading aloud, recognizing occasions for decision, generating alternatives and predicting consequences. Students could read aloud parts of a story while other students listen, so that faster readers would not "sneak preview" consequences. Each time an occasion for decision is reached, the students or teacher could instruct the reader to stop. At this point, the occasion for decision could be written on the board, and students could suggest the two or three best or most likely alternatives, as well as the positive and negative consequences for each alternative. Then, students could vote for the alternative they believe will be chosen. Reading could then proceed and the alternative which is chosen could be marked. The possible consequences listed by the students for that alternative could then be marked T (true) if the consequence occurred as predicted, F (false) if it did not occur as predicted, or U (unknown) if the story does not reveal the consequence. In the event that an unexpected consequence occurred, it could be listed with the others and marked S (surprise). In many cases, the surprise consequence will be the occasion for a new decision, and then a new tree should be started as an offshoot of the previous decision.

A Concluding Self Evaluation

Have we done what we advocate? Does our proposal for developing essential learning skills fit our conception of basic education? If so, is it suited to the needs and capabilities of the target population of learners? Finally, given current curriculum patterns in the fifth and sixth grades, can our proposal be implemented readily?

Compatibility With Criteria For Basic Education

Our proposal fits the conception of basic education discussed previously. The decision-making framework provides a structure for the acquisition of essential learning skills that apply to both factual and value judgments about the social world. Thus, a core of learning experiences can be provided that are likely to teach skills needed by all citizens to cope with life as we know it or as it may be in the future (See Criterion One of our conception of basic education).

Essential skills associated with the tasks of making decisions about factual claims and group governance are relevant to all kinds of learners; black and white children, rich and poor children, gifted and slow children, have encountered these tasks in their daily lives and will continue to do so as adults. By trying to teach a core of essential citizenship skills to all students, we may contribute substantially to a more equitable distribution of civic competence in our society.

Our decision-making framework connects formal learning in schools to social life outside schools. Thus, instruction occurs within a social context relevant to learners (See Criterion Two). In addition, Event One of our instructional strategy is designed to show the relevance of skill learning to students.

Lessons can be designed around decision-making experiences learners have encountered in daily life and will encounter again. For example, a program focused on students making a decision about a school rule can be designed with the knowledge that students in any school have experienced rules and will continue to do so. Furthermore, our formulation permits students to apply decision-making skills both to their own lives and to parallel problems in the adult world. For instance, students could work with decisions about group governance rules made by families (e.g., don't tattle-tale), their school (e.g., no running in the library, no shouting in the hall), and the adult political world of their community (e.g., a law regarding car and bicycle theft, health codes restricting pets in food stores, regulations requiring rabies shots and licenses for dogs, and the like).

Our decision-making framework and instructional procedures require systematic learning of essential skills. Thus, competencies achieved in one lesson are connected to the objectives of other lessons (See Criterion Three).

The continuous application of decision-making skills—such as the process of examining alternatives—to other lessons within one subject area and to content in other areas can give students constant practice that will reinforce the skill and enrich its meaning. This type of iteration without boring repetition can enhance skill development, as well as give students a chance to learn at their own rate. In reading and language arts, for instance, students'

decision-making skills may be enhanced through reading or listening to stories about decisions. In turn, an understanding of decision-making is a useful tool for teaching critical analysis of literature. Decision-making skills, for instance, can be used to analyze the behavior of characters in a story as well as choices the author made in developing the plot and story lines.

Our proposal features systematic and continuous application of ideas, information and skills. This active learning style facilitates achievement (See Criterion Four). Active learning also maximizes the likelihood of positive transfer of learning from lesson to lesson within a course, from one course to another within a curriculum, and from academic experiences in the school to the social world outside the school (See Criterion Five). Ability to apply skills to a wide range of problems demonstrates the highest level of cognitive capacity—the competence to think and learn independently.

Suitability to the Needs and Capacities of Learners

Are fifth and sixth graders, the target population of the AIT Essential Learning Skills Television Project, capable of achieving what we have proposed? The answer to this question must be anchored in knowledge about child development.

While current knowledge is far from complete, it is possible to draw an empirically-based picture of how children between the ages of ten and thirteen think, learn, and respond to various situations and problems. The work of Piaget, Kohlberg, Bandura, and others who have studied learning and cognitive development suggest that most fifth and sixth graders are at Piaget's concrete operation stage of cognitive development. They cannot use abstractions easily to make sophisticated intellectual moves. Generally, intermediate grade children can deal best with a maximum of two variables simultaneously, often make early commitments to beliefs, tend not to look at their behavior analytically, and tend to have difficulty formulating hypotheses and comprehending abstraction. At the same time, they deal well with concrete things, enjoy intellectual challenges, love collecting things, and can organize their collections. They can reserve judgment, organize and collect data, and make decisions and judgments based on data (Rosenau, 1972; Torney, 1972; ELS Rpt. 5A).

Many learners in the fifth and sixth grades are at the threshold of capacity to perform higher level cognitive tasks. Several studies suggest that this period of human development is an opportune time to influence thinking styles. Learners are beginning to show signs of ability to analyze problems systematically and to shift from absolutistic to relativistic ways of dealing with questions (Adelson and O'Neill, 1966; Lambert and Klineberg, 1967).

These hypotheses about cognitive development suggest that youngsters in the fifth and sixth grades can benefit from lessons which prompt them to begin thinking more analytically and rela-

tivistically. Such instruction can prime their growing capacities for higher level cognition and may facilitate their movement to the highest stage of cognitive development.

Studies of curriculum development projects provide evidence to support assumptions about the capability of fifth and sixth graders to begin performing cognitive moves required by our decision-making framework. For example, the Citizenship Development Program at The Ohio State University has developed instructional materials designed to teach decision-making skills in group governance to fifth and sixth graders. Field tests of these materials in several schools in Ohio indicated that most children in the intermediate grades could use the Decision Tree to analyze and make choices (Remy, Snyder, and Anderson, 1976).

Donna and Jerome Allender created and field tested a set of inquiry materials for fourth, fifth, and sixth graders entitled *I Am the Mayor.* These materials required students to use information to make decisions while performing the role of mayor. The evaluators concluded that their materials helped students to begin to acquire skills in inquiry and decision-making. They said that the target population "when given the opportunity will engage in independent inquiry activity" (Allender, 1969).

Other curriculum development projects for fifth and sixth graders have created and field tested instructional materials designed to foster acquisition of thinking skills. Evaluation studies provide evidence that students could achieve the instructional objectives of these projects (Joyce, 1972, pp. 27, 140-42, 260-63).

However, both studies of cognitive development and field tests of project materials indicate clearly that children in the intermediate grades need to tie formal learning of cognitive skills to concrete examples in their social world. They must be shown the application of these skills to their daily lives, and they need opportunities to practice them within their own realm of experience. Our proposal for teaching essential skills can link formal learning to purposes and problems relevant to students. For example, the decision-making framework can enable children to apply essential learning skills to tasks they face currently in everyday life and will continue to face as adults. Introducing decision-making skills to fifth and sixth graders can set the stage for more complex and profound experiences with these skills in higher grades.

Compatibility With Curriculum Patterns and Goals

To what extent is our proposal compatible with current curriculum patterns in the fifth and sixth grades?

A recent survey of course offerings in the social studies shows that these content areas are most prevalent: American history, cultural area studies, world geography, the geography of the western hemisphere, community studies, and civics or citizenship (Sutton, 1976).

The decision-making framework is directly applicable to units on community studies, civics and citizenship. It can be applied readily to instruction in history. For example, lessons about decisions by leaders and common citizens of the past can be designed. Decision-making lessons about the uses of natural resources are most applicable to geography. As a basic social phenomenon, decision-making cuts across prevailing patterns of social studies subject matter in the fifth and sixth grades. In addition, children's proficiency in decision-making skills may be enhanced through work in the reading and language arts curriculum.

Finally, instructional programs designed around our conceptual framework can help revitalize citizenship education in the elementary grades and beyond. By historical tradition and legal mandate, schools in the United States have been charged with a special responsibility for citizenship education. This educational goal has been a fact of American life since the early days of the Republic.

Several significant associations of professional educators have trumpeted their belief in the primary importance of citizenship education. The Council of Chief State School Officers has concluded that "recognizing the need for a new level of citizenship education may be the most important action this Council can take at this time" (1976).* Numerous other public and private organizations, such as the American Bar Association through its Committee on Youth Education for Citizenship, the Danforth and Kettering Foundations that sponsor the National Task Force on Citizenship, and the American Council on Education have also expressed concern about education for citizenship.

Citizenship concerns the rights and responsibilities associated with the governance of social groups such as families, churches, labor unions, schools, and private associations as well as cities, states, the nation-state, and the global system. Choices need to be made continually regarding the governance of these groups. As members of such groups, citizens are involved in making, judging, and influencing decisions related to group governance. Decision-making, then, is an enduring task of citizenship, and enhancing essential thinking and learning skills associated with it may contribute directly to a wider and more equitable distribution of civic competence within our society.

*The Council also has a Committee on International Education which has issued a preliminary report entitled "Civic Literacy for Global Interdependence: New Challenge to State Leadership in Education."

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Additional copies of this and other background papers prepared for The Essential Learning Skills Television Project are available from the Agency for Instructional Television, Box A, Bloomington, Indiana 47401. For each copy requested, enclose fifty cents to cover the costs of postage and handling.

Other papers available:

Coping in the 1980's: Inquiry Skills and Participation in Decision-Making for Fifth and Sixth Graders, by Byron G. Massailas, Professor of Education, Florida State University.

Library Skills Instruction in the Fifth and Sixth Grades, by Karen P. Middleton, Assistant Law Librarian and Lecturer in Library Studies, University of Hawaii.

Teaching Mathematics: An Intergration of Skill and Knowledge, by Philip Peak, Professor of Education, Indiana University.

Communication, Fifth and Sixth Graders, and the Essential Learning Skills Television Project, by Mary Lou Ray, Language Arts Coordinator, Mississippi Educational Television Authority.

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